

## REMARKS

This is intended as a full and complete response to the Office Action dated May 4, 2004, having a shortened statutory period for response set to expire on August 4, 2004. Please reconsider the claims pending in the application for reasons discussed below.

A Supplemental Information Disclosure Statement and accompanying Form 1449 is included herewith. Please consider the Form 1449 filed herewith prior to any further Office Action on the merits involving this Application.

In the specification, the Abstract and paragraphs [0006], [0007], [0025], and [0042] have been amended to correct minor editorial problems. No new matter has been added. Please enter the amendments to the specification.

Claims 21-40 remain pending in the application and are shown above. Claims 21-40 are rejected. Applicants have added new claims 41-48 and have amended claims 21, 28, 33, and 37-39. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 28-32 and 39 are objected to because of informalities. Claims 28 and 39 have been amended as suggested by the Examiner to correct the informalities. Claims 29-32 depend from amended claim 28. Therefore, Applicants respectfully request removal of the objection to claims 28-32 and 39.

Claims 21-40 stand rejected under 35 U.S.C. § 102(e) as anticipated by *Baugh et al.* (U.S. Patent Number 6,446,724). Regarding claims 21-26, the Examiner states that *Baugh et al.* discloses in Figures 1-30 a tubular (designated by number 10) having a preformed bypass (designated by numbers 20 and 34) at an upper end for circulating a fluid. The Examiner further states that *Baugh et al.* discloses a gripping surface (designated by number 42) disposed on an outside surface of the upper end of the tubular, the gripping surface disposed circumferentially adjacent the preformed bypass.

Regarding claim 23, the Examiner states that *Baugh et al.* teaches that the gripping surface comprises teeth (designated by number 70). Regarding claim 24, the Examiner states that the gripping surface comprises grit, upon considering the cement referred to in column 5, lines 48-51 of *Baugh et al.* to be "grit." With regards to claim 25,

the Examiner states that *Baugh et al.* discloses that the gripping surface comprises a slip, and refers to col. 1, lines 14-17 of *Baugh et al.* to support this assertion.

Applicants respectfully traverse the rejection to claims 21-26. *Baugh et al.* discloses six embodiments for hanging tubulars. In *Baugh et al.*, the first embodiment is shown in Figures 1-4, the second embodiment is shown in Figures 5-11a, the third embodiment is shown in Figures 12-15, the fourth embodiment is shown in Figures 16-19, the fifth embodiment is shown in Figures 20-26, and the sixth embodiment is shown in Figures 27-30. The second, fourth, and fifth embodiments of *Baugh et al.* do not teach a preformed bypass; rather, the passages 34 of the second embodiment, the spaces 76 between grapple members 64 of the fourth embodiment, and the cement passages 102 of the fifth embodiment are all formed downhole, either by deforming the tubular (in the second and fifth embodiments) or by inserting the grapple members 64 between the tubular 60 and the casing 62 (in the fourth embodiment). Thus, in the second, fourth, and fifth embodiments (including the drawings showing and the portion of the specification describing these embodiments) *Baugh et al.* does not teach, show, or suggest a tubular having a preformed bypass at an upper end thereof for circulating a fluid, as recited in claims 21-26.

The first embodiment of *Baugh et al.* includes a tubular 10 having openings 20 therein to allow cement to pass therethrough. In the first embodiment of *Baugh et al.*, a swage assembly 16 moves through the tubular 10 to expand a portion of the tubular 10 above the openings 20, as depicted in Figure 2. Cement is then circulated through the openings 20, and thereafter the swage assembly 16 moves through the tubular 10 to expand the portion of the tubular 10 adjacent the openings 20, as shown in Figure 3 of *Baugh et al.*

The only component of the first embodiment of *Baugh et al.* which may be deemed a bypass for circulating a fluid is the opening 20. The first embodiment, however, does not have a gripping surface connected to an outside surface of the upper end of the tubular, as recited in claims 21-26. The only element connected to the outside surface of the tubular 10 is the ring seal 26 shown in Figure 3, but the function of the ring seal 26 is to seal the cemented annulus 24 and not to grip. See *Baugh et al.* at col. 2, Ins. 40-46. Thus, in the first embodiment (including the drawings showing and

the portion of the specification describing this embodiment) *Baugh et al.* does not teach, show, or suggest a gripping surface connected to an outside surface of the upper end of the tubular, as recited in claims 21-26.

The third embodiment of *Baugh et al.*, which is illustrated in Figures 12-15, is similar to the first embodiment, including a tubular 56 having openings 50 therein to allow cement to pass therethrough. In the third embodiment of *Baugh et al.*, a swage assembly 52 moves through the tubular 56 to expand a portion of the tubular 56 above the openings 50, as depicted in Figure 13. Cement is then circulated through the openings 50, and thereafter a sliding sleeve 48 is moved over the openings 50 to block fluid flow therethrough, as shown in Figure 14 of *Baugh et al.*

Again, the only component of the third embodiment of *Baugh et al.* which may be deemed a bypass for circulating a fluid is the opening 50. The third embodiment, however, does not have a gripping surface connected to an outside surface of the upper end of the tubular, as recited in claims 21-26. *See Baugh et al.* at col. 2, Ins. 40-46. The only element which may be connected to the outside surface of the tubular 56 is a seal, which functions as a seal and not a grip. *Baugh et al.* therefore does not teach, show, or suggest in the third embodiment (including the drawings showing and the portion of the specification describing this embodiment) a gripping surface connected to an outside surface of the upper end of the tubular, as recited in claims 21-26.

Additionally, *Baugh et al.* does not teach in the third embodiment the gripping surface disposed circumferentially adjacent the preformed bypass. In the third embodiment of *Baugh et al.*, the portion of the tubular 56 and the sliding sleeve 48 disposed circumferentially adjacent the openings 50 are not gripping surfaces, as they do not contact the surrounding casing 58. Therefore, *Baugh et al.* also does not teach, show or suggest in the third embodiment (including the drawings showing and the portion of the specification describing this embodiment) the gripping surface disposed circumferentially adjacent the preformed bypass, as recited in claims 21-26.

The sixth embodiment of *Baugh et al.* includes a tubular 106 having a flared-out section 108. In *Baugh et al.*, the tubular 106 is run into the casing 112, locations 114 of the tubular are extended by a first swage into contact with the casing 112 to form passages 116 for cement flow therethrough (shown in Figure 29), and the tubular 106 is

thereafter expanded by a second swage (which has a different shape than the first swage) into the casing 112 (shown in Figure 30).

If the passages 116 of the sixth embodiment of *Baugh et al.* are used to represent the preformed bypass, the locations 114 of the tubular 106 in contact with the casing 112 are disposed circumferentially adjacent the passages 116. No gripping surface is connected to an outside surface of the locations 114 of the tubular 106. Therefore, *Baugh et al.* does not teach, show or suggest in the sixth embodiment (including the drawings showing and the portion of the specification describing this embodiment) a preformed gripping surface connected to an outside surface of the upper end of the tubular, the gripping surface disposed circumferentially adjacent the preformed bypass, as recited in claims 21-26.

The Examiner states that *Baugh et al.* teaches the gripping surface of teeth 70, as shown in Figures 16-19 of the fourth embodiment. However, as mentioned above, the fourth embodiment of *Baugh et al.* does not include a preformed bypass. Specifically, the spaces 76 between grapple members 64 of *Baugh et al.* are passages which allow cement flow therethrough and thus the only component of the fourth embodiment which can be used to represent the preformed bypass of claims 21-26. In *Baugh et al.*, however, the grapple members 64 are not inserted into the annular space 66 to ratchet their teeth 68 over the teeth 70 of the tubular 60 until the tubular 60 is downhole. See *Baugh et al.* at Figures 16-19 and col. 3 ln. 56 to col. 4 ln. 4. Thus, the spaces 76 of *Baugh et al.* are not preformed but are formed downhole. Additionally, the grapple members 64 are not preformed to grip for the tubular 60, as the grapple members 64 are inserted into position downhole.

The Examiner states that *Baugh et al.* teaches the gripping surface of a slip in column 1, lines 14-17. Column 1, lines 14-17 of *Baugh et al.* exists in the "Background of the Invention" section of *Baugh et al.* and states that "[v]arious designs of liner hangers are known and generally involve gripping mechanisms, such as slips . . . ." *Baugh et al.* then states in the Background section that known liner hanger assemblies are expensive and provide uncertainty as to their operation downhole and that "[s]ome of the objects of the present invention are to accomplish the functions of the known liner hangers by alternative means, thus eliminating the traditionally known liner hanger

altogether while accomplishing its function purposes at the same time in a single trip into the well.” See *Baugh et al.* at col. 1 lns. 19-27. Therefore, *Baugh et al.* teaches away from using the traditional slip with the embodiments disclosed within the patent. In any event, *Baugh et al.* does not teach using a slip with the embodiments disclosed in Figures 1-30, and does not teach locating a slip circumferentially adjacent a preformed bypass (or any location of the slip for that matter).

Finally, the Examiner states that *Baugh et al.* teaches the gripping surface of grit in column 5, lines 48-51, elaborating that cement is considered grit. Column 5, lines 48-51 states that “[d]ifferent materials can be used to encase the liner up and into the casing from which it is suspended, including cement . . . .” Cement is not a preformed gripping surface, as recited in claims 21-26, because the cement is inserted into the annulus downhole and cannot suspend the tubular from the casing until the cement is cured after its insertion into the annulus. Additionally, cement is not *connected* to the outside surface of the tubular in any of the embodiments disclosed in *Baugh et al.* and is not a gripping surface.

Therefore, *Baugh et al.* does not teach, show, or suggest an apparatus for use in a wellbore, comprising a tubular having a preformed bypass at an upper end thereof for circulating a fluid; and a preformed gripping surface connected to an outside surface of the upper end of the tubular, the gripping surface disposed circumferentially adjacent the preformed bypass, as recited in claims 21-26. Accordingly, Applicants respectfully request removal of the rejection to and allowance of claims 21-26.

Regarding claims 27-32, the Examiner states that *Baugh et al.* discloses a tubular (designated by number 10) having a preformed bypass (designated by number 34) for circulating a fluid and a tool (designated by number 82) having at least one radially extendable member (designated by number 64).

Applicants respectfully traverse the rejection to claims 27-32. The Examiner uses the passages 34 between the tubular 28 and the casing 36 of the second embodiment, as shown in Figures 6-11A of *Baugh et al.*, to designate the preformed bypass recited in claims 27-32. As stated above in relation to claims 21-26, the passages 34 of the second embodiment are not preformed, but formed downhole by the swage assembly 30 (Figures 5 and 6 show the run-in position of the tubular 28).

In fact, as stated above in relation to claims 21-26, the tubulars of the second, fourth, and fifth embodiments of *Baugh et al.* do not have a preformed bypass; instead, the bypass is formed when the tubular is downhole. Therefore, in the second, fourth, and fifth embodiments (including the drawings showing and the portion of the specification describing these embodiments) *Baugh et al.* does not teach, show, or suggest a tubular having a preformed bypass for circulating a fluid, as recited in claims 27-32.

To represent the tool recited in claims 27-32, the Examiner utilizes the fourth embodiment of *Baugh et al.*, specifically the tool 82 used to ratchet the teeth 68 of the grapple member 64 over the teeth 70 of the tubular 60. Ratcheting the teeth 68, 70 forms the spaces 76 between the grapple members, the spaces 76 then being capable of fluid flow therethrough. Therefore, in this embodiment, the tubular 60 does not have a preformed bypass.

In relation to the first, third, and sixth embodiments of *Baugh et al.*, no apparatus is disclosed comprising a tool having at least one radially extendable member. Therefore, *Baugh et al.* does not teach, show, or suggest an apparatus for use in a wellbore, comprising a tubular having a preformed bypass for circulating a fluid; and a tool having at least one radially extendable member, as recited in claims 27-32. Applicants therefore respectfully request removal of the rejection to and allowance of claims 27-32.

Regarding claims 33-36, the Examiner states that *Baugh et al.* discloses placing a tubular (designated by number 10) in the wellbore, the tubular having a gripping surface (designated by number 42) disposed on an outside surface of the tubular at a first location and a preformed bypass (designated by number 34) for circulating a fluid disposed at a second location. The Examiner then states that *Baugh et al.* further discloses expanding the tubular at the first location into substantial contact with an inner diameter of the wellbore (designated by number 12) and circulating the fluid into the wellbore (in column 5, lines 27-50).

Applicants respectfully traverse the rejection to claims 33-36. As stated above in relation to claims 21-26, the tubulars of the second, fourth, and fifth embodiments of *Baugh et al.* do not have a preformed bypass; instead, the bypass is formed when the

tubular is downhole. Therefore, *Baugh et al.* does not teach, show, or suggest in its second, fourth, and fifth embodiments (including the drawings showing and the portion of the specification describing these embodiments) a method of setting a liner in a wellbore, comprising placing a tubular in a wellbore, the tubular having a preformed bypass for circulating a fluid disposed at a second location, as recited in claims 33-36.

Furthermore, as stated above in relation to claims 21-26, *Baugh et al.* does not teach in relation to its first, third, and sixth embodiments the tubular having a gripping surface connected to an outside surface of the tubular at a first location. Also as stated above in relation to claims 21-26, *Baugh et al.* does not teach a gripping surface connected to an outside surface of the tubular at a first location, as recited in claims 33-36, by teaching a slip. Moreover, as stated above in relation to claims 21-26, *Baugh et al.* does not teach the tubular having a gripping surface in the form of teeth connected to an outside surface of the tubular at a first location and a preformed bypass for circulating a fluid disposed at a second location. Finally, as mentioned above, *Baugh et al.* does not teach placing the tubular in the wellbore having cement connected to an outside surface of the tubular; rather, cement is flowed downhole into the wellbore after the tubular is placed in the wellbore.

Accordingly, *Baugh et al.* does not teach, show, or suggest a method of setting a liner in a wellbore, comprising placing a tubular in the wellbore, the tubular having a gripping surface connected to an outside surface of the tubular at a first location and a preformed bypass for circulating a fluid disposed at a second location; expanding the tubular at the first location into substantial contact with an inner diameter of the wellbore; and circulating the fluid into the wellbore, as recited in claims 33-36. Applicants therefore respectfully request removal of the rejection to and allowance of claims 33-36.

Regarding claims 37-40, the Examiner states that *Baugh et al.* discloses placing a tubular (designated by number 10) in the wellbore, the tubular having a preformed bypass (designated by number 34) at an upper end thereof for circulating a fluid. The Examiner then states that *Baugh et al.* further teaches expanding a portion of the tubular to selectively place portions (designated by number 42) of the tubular

circumferentially adjacent the preformed profile into frictional contact with a surrounding surface and circulating a fluid in the wellbore.

Applicants respectfully traverse the rejection to claims 37-40. As stated above in relation to claims 20-26, the tubulars of the second, fourth, and fifth embodiments of *Baugh et al.* do not have a preformed bypass; instead, the bypass is formed when the tubular is downhole. Therefore, *Baugh et al.* does not teach, show, or suggest in its second, fourth, and first embodiments (including the drawings showing and the portion of the specification describing these embodiments) a method of setting a tubular in a wellbore, comprising placing the tubular in the wellbore, the tubular having a preformed bypass at an upper end thereof for circulating fluid, as recited in claims 37-40.

Also, as explained above in relation to claims 27-32, *Baugh et al.* does not teach, show, or suggest in the first, third, and sixth embodiments placing a tool having at least one radially extendable member in the wellbore. Similarly, as stated above in relation to claims 27-32, *Baugh et al.* does not teach, show, or suggest in the second, fourth, and fifth embodiments placing a tool having at least one radially extendable member in the wellbore when the tubular of the same embodiment which is placed within the wellbore has a preformed bypass. *Baugh et al.* thus does not teach a tubular having a preformed bypass in combination with a tool having at least one radially extendable member.

*Baugh et al.* does not teach, show, or suggest a method of setting a tubular in a wellbore, comprising placing the tubular in the wellbore, the tubular having a preformed bypass at an upper end thereof for circulating a fluid; placing a tool having at least one radially extendable member in the wellbore; expanding a portion of the tubular to selectively place portions of the tubular circumferentially adjacent the preformed bypass into frictional contact with a surrounding surface; and circulating the fluid into the wellbore, as recited in claims 37-40, for the reasons stated above. As such, Applicants respectfully request removal of the rejection to and allowance of claims 37-40.

New claim 41 has been added. *Baugh et al.* does not teach, show, or suggest an apparatus for use in a wellbore, comprising a tubular having a preformed bypass at an upper end thereof for circulating a fluid, wherein the upper end is tapered to a smaller maximum outer diameter than a maximum outer diameter of a lower end of the tubular; and a gripping surface disposed on an outside surface of the upper end of the tubular,



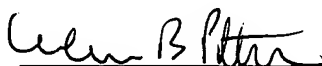
the gripping surface disposed circumferentially adjacent the preformed bypass, as recited in claim 41. Applicants therefore respectfully submit that claim 41 is allowable over *Baugh et al.* and respectfully request allowance of claim 41.

New claims 42-43 depend from claim 21, new claim 44 depends from claim 27, new claims 45 and 46 depend from claim 33, and new claims 47 and 48 depend from claim 37. Therefore, Applicants respectfully submit that claims 42-43, 44, 45-46, and 47-48 are allowable for at least the same reasons that claims 21, 27, 33, and 37, respectively, are allowable.

Additionally, claims 42-43, 44, and 46 are allowable because the grapple members 64 of *Baugh et al.* are ultimately located external to the tubular 60, and are not integral with or at least partially embedded in the tubular wall. Claims 45, 47, and 48 are additionally allowable over *Baugh et al.* because the grapple members 64 are not fixedly connected on the tubular 60, and the grapple members 64 are not located at the same location on the tubular 60 prior to placing the tubular in the wellbore and after the tubular 60 is expanded downhole. See *Baugh et al.* at Figures 16-19 and col. 3 ln. 56 to col. 4 ln. 4. For all of the above reasons, Applicants respectfully request allowance of claims 42-48.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request allowance of the claims.

Respectfully submitted,



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